

**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	10/655,230
	Filing Date	September 3, 2003
	First Named Inventor	Karim, M. Ziaul
	Art Unit	Unassigned
	Examiner Name	Unassigned
Total Number of Pages in This Submission	Attorney Docket Number	A8313/T51200

**ENCLOSURES (Check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Return Postcard, copy of one (1) cited reference
Remarks		The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual	Townsend and Townsend and Crew LLP Patrick M. Boucher	Reg. No. 44,037
Signature		
Date	2003 Oct 3	

**CERTIFICATE OF TRANSMISSION/MAILING**

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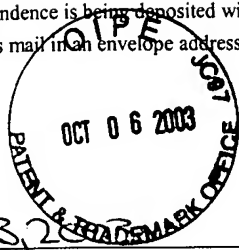
Typed or printed name	Nicole M. Wartell		
Signature		Date	10/03/2003

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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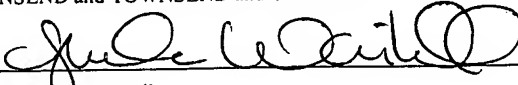
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PATENT  
Attorney Docket No.: A8313/T51200  
AMAT No.: 008313  
USA/DSM/HDP/CVD/JW  
TTC No.: 016301-051200US

On October 3, 2003

TOWNSEND and TOWNSEND and CREW LLP

By:   
Nicole M. Wartell

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

M. Ziaul Karim et al.

Application No.: 10/655230

Filed: 09-03-2003

For: IN-SITU-ETCH-ASSISTED HDP  
DEPOSITION USING SIF<sub>4</sub>, AND  
HYDROGEN

Examiner: Unassigned

Art Unit: Unassigned

INFORMATION DISCLOSURE  
STATEMENT UNDER 37 CFR §1.97 and  
§1.98

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A are being called to the attention of the Examiner. U.S. patents are not enclosed in accordance with the Patent Office waiver issued August 5, 2003 in the Official Gazette, which states as follows:

The Office hereby waives the requirement under 37 CFR 1.98

(a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S.

patent application publication for all U.S. national patent

applications filed after June 30, 2003 and for all international

applications that have entered the national stage under 35 USC 371

after June 30, 2003. See 37 CFR 1.491(b). For all patent


applications filed on or before June 30, 2003, copies of cited U.S. patents and patent application publications are still required unless an eIDS is filed.

In accordance with 37 CFR 1.98(a)(2), copies of the foreign patent documents and non-patent literature references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

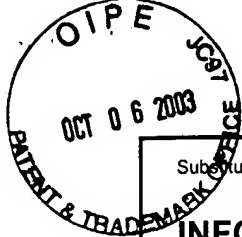
As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

  
Patrick M. Boucher  
Reg. No. 44,037

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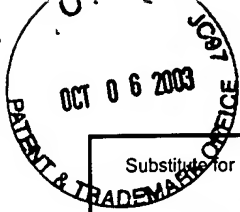


Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>			<b>Complete if Known</b>		
			Application Number	10/655230	
			Filing Date	09-03-2003	
			First Named Inventor	Karim, M. Ziaul	
			Art Unit	Unassigned	
Examiner Name	Unassigned				
Sheet	1	of	3	Attorney Docket Number	A8313/T51200

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if known)			
	A1	US-4,690,746	09-01-1987	McInerney et al.	
	A2	US-4,737,379	04-12-1988	Hudgens et al.	
	A3	US-4,835,005	05-30-1989	Hirooka et al.	
	A4	US-4,872,947	10-10-1989	Wang et al.	
	A5	US-4,890,575	01-02-1990	Ito et al.	
	A6	US-4,892,753	01-09-1990	Wang et al.	
	A7	US-4,960,488	10-02-1990	Law et al.	
	A8	US-5,000,113	03-19-1991	Wang et al.	
	A9	US-5,089,442	02-18-1992	Olmer	
	A10	US-5,156,881	10-20-1992	Okano et al.	
	A11	US-5,271,972	12-21-1993	Kwok et al.	
	A12	US-5,275,977	01-04-1994	Otsubo et al.	
	A13	US-5,279,865	01-18-1994	Chebi et al.	
	A14	US-5,302,233	04-12-1994	Kim et al.	
	A15	US-5,319,247	06-07-1994	Matsuura	
	A16	US-5,362,526	11-08-1994	Wang et al.	
	A17	US-5,416,048	05-16-1995	Blalock et al.	
	A18	US-5,468,342	11-21-1995	Nulty et al.	
	A19	US-5,571,576	11-05-1996	Qian et al.	
	A20	US-5,599,740	02-04-1997	Jang et al.	
	A21	US-5,624,582	04-29-1997	Cain	
	A22	US-5,645,645	07-08-1997	Zhang et al.	
	A23	US-5,679,606	10-21-1997	Wang et al.	
	A24	US-5,712,185	01-27-1998	Tsai et al.	
	A25	US-5,719,085	02-17-1998	Moon et al.	
	A26	US-5,804,259	09-08-1998	Robles	
	A27	US-5,850,105	12-15-1998	Dawson et al.	
	A28	US-5,858,876	01-12-1999	Chew	
	A29	US-5,872,052	02-16-1999	Iyer	
	A30	US-5,872,058	02-16-1999	Van Cleemput et al.	
	A31	US-5,910,342	06-08-1999	Hirooka et al.	
	A32	US-5,913,140	06-15-1999	Roche et al.	
	A33	US-5,915,190	06-22-1999	Pirkle	
	A34	US-5,937,323	08-10-1999	Orczyk et al.	
	A35	US-5,953,635	09-14-1999	Andideh	
	A36	US-5,968,610	10-19-1999	Liu et al.	
	A37	US-5,976,327	11-02-1999	Tanaka	
	A38	US-5,990,013	11-23-1999	Berenguer et al.	
	A39	US-5,990,000	11-23-1999	Hong et al.	
	A40	US-6,013,191	01-11-2000	Nasser-Faili et al.	
	A41	US-6,013,584	01-11-2000	M'Saad	

Examiner Signature		Date Considered	
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\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.  
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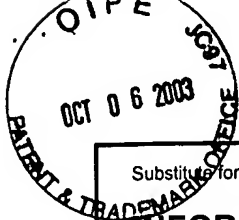
<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>	
			Application Number	10/655230
			Filing Date	09-03-2003
			First Named Inventor	Karim, M. Ziaul
			Art Unit	Unassigned
Examiner Name	Unassigned			
Sheet <b>2</b>	of <b>3</b>	Attorney Docket Number	A8313/T51200	

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if known)			
	A42	US-6,030,881	02-29-2000	Papasouliotis et al.	
	A43	US-6,037,018	03-14-2000	Jang et al.	
	A44	US-6,039,851	03-21-2000	Iyer	
	A45	US-6,059,643	05-09-2000	Hu et al.	
	A46	US-6,136,685	10-24-2000	Narwankar et al.	
	A47	US-6,167,834 B1	01-02-2001	Wang et al.	
	A48	US-6,170,428 B1	01-09-2001	Redeker et al.	
	A49	US-6,182,602 B1	02-06-2001	Redeker et al.	
	A50	US-6,189,483 B1	02-20-2001	Ishikawa et al.	
	A51	US-6,191,026 B1	02-20-2001	Rana et al.	
	A52	US-6,203,863 B1	03-20-2001	Liu et al.	
	A53	US-6,194,038 B1	02-27-2001	Rossmann	
	A54	US-6,197,705 B1	03-06-2001	Vassiliev	
	A55	US-6,217,658 B1	04-17-2001	Orczyk et al.	
	A56	US-6,228,751 B1	05-08-2001	Yamazaki et al.	
	A57	US-6,313,010 B1	11-06-2001	Nag et al.	
	A58	US-6,335,288 B1	01-01-2002	Kwan et al.	
	A59	US-6,395,150 B1	05-28-2002	Van Cleemput et al.	
	A60	US 2002-0187655 A1	12-12-2002	Tan	
	A61	US-6,503,843 B1	01-07-2003	Xia et al.	
	A62	US-6,596,654 B1	07-22-2003	Bayman et al.	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	B1	JP	7-161703	A	06-23-1995		Abstract only	<input type="checkbox"/>
	B2	JP	2058836	A	02-28-1990		Abstract only	<input type="checkbox"/>
	B3	GB	2 267 291		12-01-1993			<input type="checkbox"/>

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			Application Number	Unassigned	
			Filing Date	09/03/2003	
			First Named Inventor	Karim, M. Ziaul	
			Art Unit	Unassigned	
			Examiner Name	Unassigned	
Sheet	3	of	3	Attorney Docket Number	A8313/T51200

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C1	ABRAHAM, "Reactive Facet Tapering of Plasma Oxide For Multilevel Interconnect Applications," VMIC Conference. pgs. 115-121 (1987).	
	C2	LEE et al., "Dielectric Planarization Techniques For Narrow Pitch Multilevel Interconnects," VMIC Conference, pgs. 85-92 (1987).	
	C3	MUSAKA, "Single Step Gap Filling Technology fo Subhalf Micron Metal Spacings on Plasma Enhanced TEOS/O2 Chemical Vapor Deposition System," International Conference on Solid State Devices and Materials pgs. 510-512, held in Japan, (1993).	
	C4	NALWA, H.S., Handbook of Low and High Dielectric Constant Materials and Their Applications, vol. 1, page 66 (1999).	
	C5	NGUYEN, s.v., "High-Density Plasma Chemical Vapor Deposition of Silicon-Based Dielectric Films for Integrated Circuits," Journal of Research and Development, vol. 43, 1/2 (1999).	
	C6	QIAN et al., "High Density Plasma Deposition and Deep Submicron Gap Fill with Low Dielectric Constant SiOF Films," DUMIC Conference, pgs. 50-56, held in California (1995).	
	C7	VASSILIEUV et al., "Trends in void-free pre-metal CVD dielectrics," <u>Solid State Technology</u> , 2001, pgs. 129-136, www.solid-state.com.	

Examiner Signature		Date Considered	
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